

IN THE SPECIFICATION:

Please amend the specification as follows:

Please amend the paragraph beginning on page 2, line 26, and ending on page 3, line 8, as follows.

-- To suppress problems resulting from the heat generated by the linear motor, the amount of coolant increases rapidly. ~~Fluoride~~ A fluoride solution widely used as the cooling medium has a smaller heat capacity and a larger specific gravity than those of water. Thus, the amount of coolant increases, and the load on ~~equipments~~ equipment, such as a pump, increases accordingly. Also, ~~equipments~~ equipment, such as a heat exchanger, a transport pump, and the like, to be used, increase in size, leading to a very large cooling system. --

Please amend the paragraph beginning on page 3, line 17, as follows.

-- The present invention according to its first aspect relates to a refrigerant supply apparatus, which supplies a refrigerant to a cooling target, comprising a refrigerant supply channel through which pure water (e.g., the resistivity of the pure water is preferably $1 \text{ M}\Omega \cdot \text{cm}$ or more, and/or the dissolved oxygen amount is preferably 1 mg or less per liter) as the refrigerant is supplied to the cooling target, and an impurity removing unit disposed in an impurity removing channel, which is a channel different from the refrigerant supply channel. --

Please amend the paragraph beginning on page 10, line 17, and ending on page 11, line 1, as follows.

-- According to the preferred embodiments of the present invention, pure water is used as a cooling medium for a cooling system in a device manufacturing apparatus, such as a semiconductor exposure apparatus, so that ~~equipments~~ equipment (e.g., a pump, a refrigerant temperature adjustment unit, a flow channel, and the like) that constitute the cooling system are made compact, and the entire cooling system is made compact. As water has a heat recovering ability almost twice that of fluoride solution, the heat recovery amount can be increased without increasing the flow rate of the cooling medium. --

Please amend the paragraph beginning on page 11, line 2, as follows.

-- Water ~~rots~~ can rot equipment when it is left for a long period of time, and may corrode ~~[[a]]~~ metal, or the like. As water does not have electrical insulating properties, it causes short circuiting in electronic ~~equipments~~ equipment. In view of this, according to the preferred embodiments of the present invention, not general tap water or industrial water, but pure water, is used as the cooling medium. The purity (quality) of the pure water can be improved by an impurity removing unit. Supply of the pure water to a cooling target (e.g., a driving section such as a linear motor) can be stopped by a controller (e.g., a valve and its control unit) when the pure water does not have a predetermined purity. The purity of pure water can be measured by a sensor as, e.g., a resistivity and/or a dissolved oxygen amount. For example, the purity of the pure water is preferably $1 \text{ M } \Omega \cdot \text{cm}$ or more in resistivity, and/or the dissolved oxygen amount is

preferably 1 mg or less per liter. When the purity (water quality) of the pure water is managed, corrosion of the metal, or the like, can be prevented, and electrical insulating properties can be ensured. --

Please amend the paragraph beginning on page 21, line 10, and ending on page 22, line 5, as follows.

-- An exposure apparatus as an example of a device manufacturing apparatus in which the pure water supply apparatus described above is incorporated will be described. Fig. 4 is a view schematically showing the exposure apparatus. This exposure apparatus has a reticle stage (not shown), a linear motor 400 as a driving section for the reticle stage, a wafer stage (not shown), a linear motor 500 as a driving section for the wafer stage, a projection optical system (not shown), a reticle illumination system, and the like. In this exposure apparatus, a reticle pattern is transferred onto a wafer with a slit beam while moving a reticle held by the reticle stage and a wafer held by the wafer stage relative to each other. Such an exposure apparatus is called a scanning exposure apparatus. The pure water supply apparatus described above can be applied not only to a scanning exposure apparatus, but also to an exposure apparatus of a tape type called a stepper and to other types of exposure apparatuses. In the stepper, generally, with the reticle being fixed, a reticle pattern is sequentially transferred to a plurality of shot regions while stepping the wafer. --

Please amend the paragraph beginning on page 23, line 1, as follows.

-- A semiconductor device manufacturing process utilizing the above exposure apparatus will be described. Fig. 5 is a flow chart showing the flow of an overall semiconductor device manufacturing process. In step 1 (circuit design), the circuit of a semiconductor device is designed. In step 2 (mask fabrication), a mask is fabricated based on the designed circuit pattern. In step 3 (wafer manufacture), a wafer is manufactured using a material such as silicon. In step 4 (wafer process), called a preprocess, an actual circuit is formed on the wafer by lithography using the mask and wafer described above. In step 5 (assembly), called a post-process, a semiconductor chip is formed from the wafer fabricated in step 4. This step includes processes such as assembly (dicing and bonding) and packaging (chip encapsulation). In step 6 (inspection), inspections including an operation check test and a durability test of the semiconductor device fabricated in step 5 are performed. A semiconductor device is completed with these processes, and is shipped (step 7). --